

## Framework to Enhance Teaching and Learning in System Analysis and Unified Modelling Language

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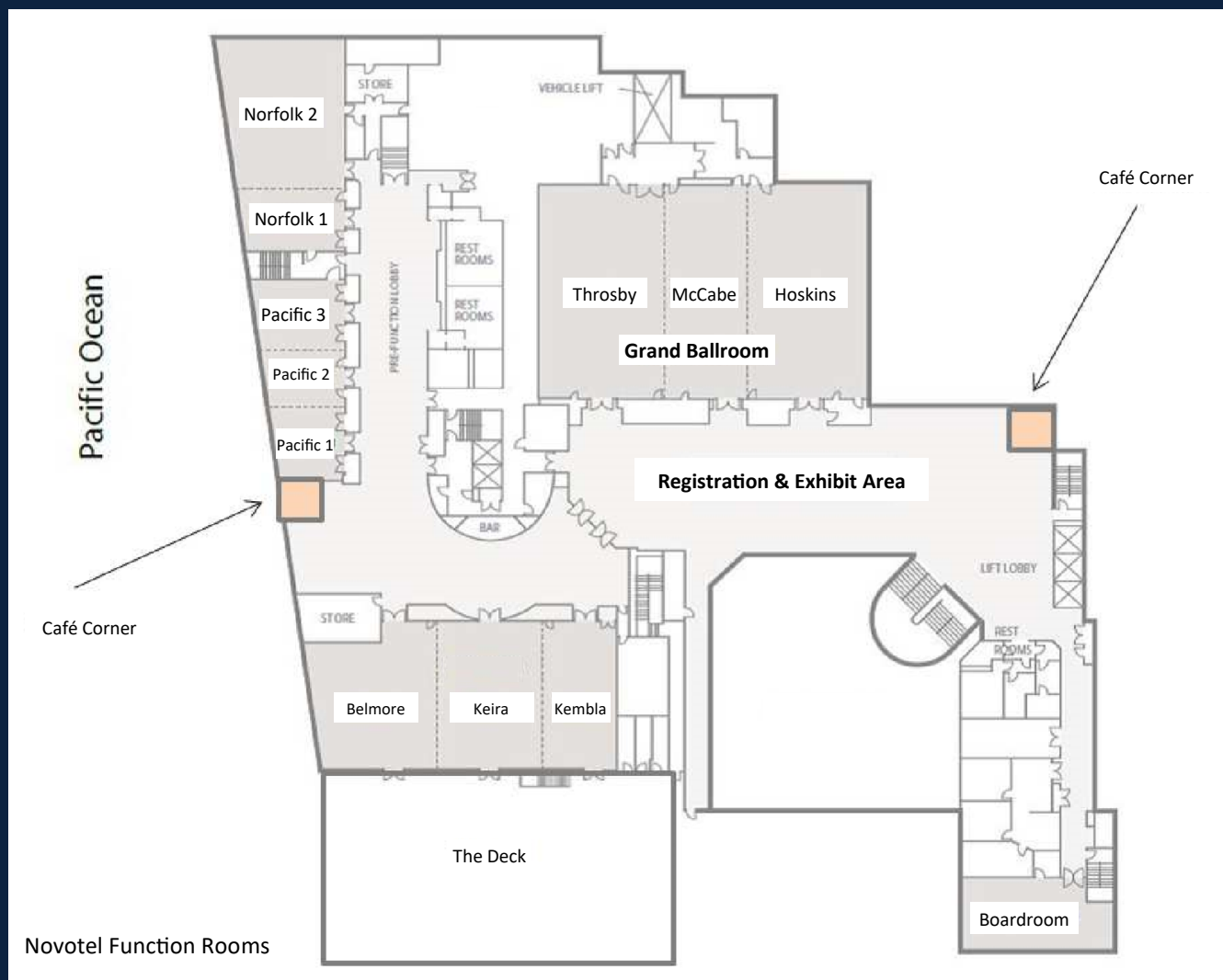
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# IEEE TALE 2018

*Engineering Next-Generation Learning*

Wollongong, Australia  
4-7 December 2018

## Conference Program



# Tuesday, 4 Dec 2018

## Day #1: University of Wollongong Campus

11:30—19:30	Registration	UOW Campus - Hope Theatre
12:00—15:00	Pre-Conference Workshop 1: Patents & IP Law	UOW Campus - Building 17, Room 106
12:00—15:00	Pre-Conference Workshop 2: Analytics & Student Support	UOW Campus - Building 3, Room 122
12:00—15:00	Pre-Conference Workshop 3: Remote Labs	UOW Campus - Building 4, Room 122
12:00—15:00	Pre-Conference Workshop 4 - Chatbot Tutors	UOW Campus - Building 4, Room 123
12:00—15:00	Pre-Conference Workshop 5: XR & Immersive Learning	UOW Campus - Building 6, Room 210
16:00—16:45	UOW Campus Tour	Meet at UOW Campus - Building 4 Atrium
17:00—19:10	Conference Opening with Keynotes by Susan Zhang & Dr Bror Saxberg	UOW Campus - Hope Theatre
19:10—21:30	Welcome Reception	UOW Campus - UniBar

# Wednesday, 5 Dec 2018

## Day #2: Novotel Wollongong Northbeach

08:30—17:00	Registration	Registration & Exhibit Area
09:00—10:10	Opening Session with Keynote by Prof Gregor Kennedy	Grand Ballroom
10:10—16:30	VR/AR Demo Showcase	Norfolk 1 & 2
10:10—10:40	Poster Session	Registration & Exhibit Area
10:30—10:55	Morning Tea	Registration & Exhibit Area

## Throsby (Ballroom 1) : Engineering Education - Full Papers (10min presentations + 3min questions)

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation	Country
11:00—11:13	244	Enhancing Teaching Methods on Embedded Systems with Project-Based Learning Sanfilippo Filippo Norwegian University of Science and Technology	Norway
11:15—11:28	306	Contribution of Learning, Teaching and Assessment Activities to the Development of 21st Century STEM Competencies Hettling Laura Brandenburg University of Technology Cottbus-Senftenberg	Germany
11:30—11:43	284	The Link between Spatial Skills and Engineering Problem-Solving Sorby Sheryl University of Cincinnati	USA
11:45—11:58	227	Evaluating Teaching Effectiveness Using Quantitative Student Feedback Srinivasan Dipti National University of Singapore	Singapore
12:00—12:13	395	Using Problem-Based Learning to Enable Application of Foundation Engineering Knowledge in a Real-World Problem Larson Jean S. Arizona State University	USA

## McCabe (Ballroom 2) : Computing & IT Education - Full Papers (10min presentations + 3min questions)

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation	Country
11:00—11:13	134	A Quantitative Approach to Design Special Purpose Systems to Measure Hacking Skills Falah Ahmed Deakin University	Australia
11:15—11:28	138	Educating and Raising Awareness on Cyber Security Social Engineering: A Literature Review Aldawood Hussain Ali University of Newcastle	Australia
11:30—11:43	359	Approach for Evaluating IT Employees' Programming Ability Using the Programed Visual Contents Comparison Method Kiyomitsu Hidenari Kobe University	Japan
11:45—11:58	366	Teaching Hardware Reverse Engineering: Educational Guidelines and Practical Insights Becker Steffen Ruhr-Universität Bochum	Germany
12:00—12:13	467	An Essential Applied Statistical Analysis Course using RStudio with Project-Based Learning for Data Science Gunawan Aldy Singapore Management University	Singapore

## Hoskins (Ballroom 3) : Technology Enhanced Learning - Full Papers (10min presentations + 3min questions)

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation	Country
11:00—11:13	125	Application and Evaluation of a Grouped Flipped Classroom Method Umezawa Katsuyuki Shonan Institute of Technology	Japan
11:15—11:28	184	Peer Assisted Study Sessions (PASS) Online: Investigating the impact of an online format across different first year university subjects Woolrych Tracey University of Wollongong	Australia
11:30—11:43	275	Students Discussing Ideas in Online Spaces: Research-Infused Recommendations for Making Computer-Mediated Discussions Productive for Learning Zengilowski Allison Nicole University of Texas at Austin	USA
11:45—11:58	371	Evaluation of Developing Educational Chatbots Based on The Seven Principles for Good Teaching Luo Jing The University of Hong Kong	Hong Kong
12:00—12:13	425	Transferring Human Tutor's Style to Pedagogical Agent: A Possible Way by Leveraging Variety of Artificial Intelligence Achievements Feng Xiang East China Normal University	China



Kembla : STEM Education (K-12) Full Papers - Full Papers (10min presentations + 3min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:00—11:13	270	Using Maths Model Method in Solving Pre Algebraic Problems among Year Five Students			Malaysia
		Binti Ismail	Zaleha	Universiti Teknologi Malaysia	
11:15—11:28	105	Arduino as an Educational Tool to Introduce Robotics			Spain
		Castro	Manuel	UNED	
11:30—11:43	157	Computational Thinking and Coding Subject in Primary Schools: Methodological Approach Based on Alternative Cooperative and Individual Learning Cycles			Australia
		Vlahu-Gjorgievska	Elena	University of Wollongong	
11:45—11:58	318	Computational Thinking Education for Children: Algorithmic Thinking and Debugging			Hong Kong
		Wong	Gary K. W.	The University of Hong Kong	
12:00—12:13	337	Framework of Integrating Algebraic Thinking in Problem-Based Learning via Online Environment for School Students			Malaysia
		Binti Ismail	Zaleha	Universiti Teknologi Malaysia	

Pacific 1&2 : XR & Immersive Learning Environments - Full Papers (10min presentations + 3min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:45—11:58	391	Design and Implementation of an Augmented Reality Application with an English Learning Lesson			China
		Liu	Enrui	Beijing Normal University	
12:00—12:13	444	Investigating Using Behaviors of E-dictionary with Multiple Design: A Perspective from the Integration of Eye-Tracking Technique and Stimulated Recall			China
		Zhai	Xuesong (Michael)	Beijing Normal University	

Pacific 3 : Engineering Education - Full Papers (10min presentations + 3min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:00—11:13	333	Are We Fit to Graduate Creative Professionals?			Australia
		Belski	Iouri	RMIT	
11:15—11:28	474	Teaching Reform of Engineering Graphics Education in Terms of Engineering Education Professional Certification in Guangzhou, China			China
		Liu	Zhen	South China University of Technology	
11:30—11:43	486	Learning Strategies to Optimize the Assimilation of ITC2 Competencies for Business Engineering Programs			Peru
		Luna	Ana	Universidad del Pacifico	
11:45—11:58	252	A Java Program for Automatic Team Allocation in Project-Based Coursework			Australia
		Vial	Peter James	University of Wollongong	
12:00—12:13	266	Higher Education Practices Accounting for Gender Differences in Technological Development as Part of SDGs Achievement			Japan
		Hirata	Sadayo	Shibaura Institute of Technology	

Keira : Industry Sessions					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:00—11:40	500	Microsoft HoloLens and AI			Australia
		Townes	Megan	Microsoft	
11:40—12:00	505	Enriching Education: Free Classroom Computing Education Resources Increase STEM Diversity			Australia
		Haas	Damian	Oracle Academy	

Belmore: Panel Session					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:00—12:20	500	Panel Session - Providing Automated and Individually Tailored Assessment Feedback			
		Cunningham-Nelson	Samuel	Queensland University of Technology	Australia
		Mohammadi-Aragh	Jean	Mohammadi-Aragh	USA
		Goncher	Andrea	Charles Sturt University	Australia
		Boles	Wageeh	Queensland University of Technology	Australia

Registration and Exhibit Area and Norfolk Rooms & Windjammers Restaurant				
12:15—12:55	Poster Session & VR/AR Demo Showcase			Registration & Exhibit Area & Norfolk Rooms
12:55—13:55	Lunch			Windjammers Restaurant

**Throsby (Ballroom 1) : Engineering Education - Full Papers (10min presentations + 3min questions)**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
14:00—14:13	229	Mind the Gap: Insights into Student Perceptions During Peer Assessment of Writing			New Zealand
		Tan	Benjamin	The University of Auckland	
14:15—14:28	432	Make Your Own Homework: An Alternative Approach to Assignments in a Flipped Calculus Class			Indonesia
		Dawood	Rahmad	Universitas Syiah Kuala	
14:30—14:43	461	Objective Assessment of Students' Generic Skills			Japan
		Yajima	Kuniaki	National Institute of Technology, Sendai College	
14:45—14:58	306	An Inter-Disciplinary and University PBL Curriculum Using Robot Challenge			Japan
		Hisazumi	Kenji	Kyushu University	
15:00—15:13	322	Exploring the Impact of In-Class Writing Exercises in an Engineering Course			New Zealand
		Nadeem	Muhammad	The University of Auckland	
15:15—15:28	227	Creative Thinking of Engineering Undergraduates through Brainstorming during Mathematical Problem Solving			Malaysia
		Mohammad Yusof	Yudariah	Universiti Teknologi Malaysia	

**McCabe (Ballroom 2) : Computing & IT Education - Full Papers (10min presentations + 3min questions)**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
14:00—14:13	467	A Comparison Analysis between Achievement and Requirements for Computing Education			Japan
		Kakeshita	Tetsuro	Saga University	
14:15—14:28	347	Skill-Based Group Allocation of Students for Project-Based Learning Courses Using Genetic Algorithm: Weighted Penalty Model			Fiji
		Nand	Ravneil	The University of the South Pacific	
14:30—14:43	365	Skill-Based Group Allocation of Students for Project-Based Learning Courses Using Genetic Algorithm: Weightless Penalty Model			Fiji
		Nand	Ravneil	The University of the South Pacific	
14:45—14:58	384	Effectiveness of Physical Robot Versus Robot Simulator in Teaching Introductory Programming			Singapore
		Sockalingam	Nachamma	Singapore University of Technology and Design	
15:00—15:13	130	SplashKit: A Development Framework for Motivating and Engaging Students in Introductory Programming			Australia
		Renzella	Jake	Deakin University	
15:15—15:28	294	Improving outcomes for a Masters Capstone IT Project			Australia
		Izu	Cruz	The University of Adelaide	

**Hoskins (Ballroom 3) : Technology-Enhanced Learning - Full Papers (10min presentations + 3min questions)**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
14:00—14:13	272	Technology-Supported Single Training for One-on-One in Basketball Matches			Japan
		Kohda	Naoya	Tokushima University	
14:15—14:28	446	A Gamification Approach For Serious Games			France
		Carron	Thibault	LIP6, UPMC	
14:30—14:43	194	An Empirical Study on the Impact of Pre-recorded Lectures on Students' Performance in Integral Calculus			Philippines
		Fernando	Alexa Ray Ronsairo	National University	
14:45—14:58	271	Enhanced Student Learning in Proteomics - An Interactive Tool Support for Teaching Workflows			Australia
		Wickramarachchi	Anuradha	Australian National University	
15:00—15:13	288	Making the Most of Repetitive Mistakes: An Investigation into Heuristics for Selecting and Applying Feedback to Programming Coursework			UK
		Howell	Roger	Aston University	
15:15—15:28	320	The Effectiveness of Integrating Geometer's Sketchpad Software in Phase-Based Geometric Learning			Malaysia
		Mohd Zaid	Norasykin	Universiti Teknologi Malaysia	

**Kembla : STEM Education (K-12) - Full Papers (10min presentations + 3min questions)**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
14:00—14:13	374	Relationship between Teachers' Self-Efficacy and Instructional Strategies Applied among Secondary School Teachers in Implementing STEM Education			Malaysia
		Binti Ismail	Zaleha	Universiti Teknologi Malaysia	
14:15—14:28	114	Relationships between Collaborative Problem Solving, Learning Performance and Learning Behavior in Science Education			Japan
		Chen	Li	Kyushu University	
14:30—14:43	212	Cognitive Load Optimisation – A New, Practical, Easy-to-Use Teaching Method for Enhancing STEM Educational Outcomes Based on the Science of Learning			Australia
		Maj	Stanislaw Paul	SPM Consulting	
14:45—14:58	285	Playful STEAM Learning Using Robots			India
		Pandian	Shunmugham R.	Indian Institute of Information Technology, Design and Manufacturing	
15:00—15:13	439	ICT Competency, Network Interaction, Internet Self-efficacy, and Mathematical Achievement: Direct and Mediating Effects			China
		Lu	Chun	Central China Normal University	
15:15—15:28	277	Awakening the Interest of High School Pupils in Science, Technology, Engineering and Mathematics Studies and Careers through Scientific Projects			Germany
		Kazula	Stefan	Brandenburg University of Technology Cottbus-Senftenberg	

Pacific 1 & 2 : XR & Immersive Learning Environments - Full Papers (10min presentations + 3min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
14:00—14:13	258	Evaluation of a Virtual Reality Nasal Cavity Education Tool			New Zealand
		Marks	Stefan	Auckland University of Technology	
14:15—14:28	482	Immersive Learning Explored: Subjective and Objective Factors Influencing Learning Outcomes in Immersive Educational Virtual Environments			Germany
		Dengel	Andreas	University of Passau	
14:30—14:43	313	Integration of Virtual Reality and Augmented Reality: Are They Worth the Effort in Education?			Australia
		Pita	Zijad	Kent Institute	
14:45—14:58	353	Collaborative Virtual Reality Simulation for Multi-Professional Training in Emergency Management Communications			Norway
		Prasolova-Førland	Ekaterina	Norwegian University of Science and Technology	
15:00—15:13	355	Developing Virtual Reality Open Educational Resources in a Sino-Foreign Higher Education Institution: Challenges and Strategies			China
		Towey	Dave	University of Nottingham Ningbo China	
15:15—15:28	380	A Study on Female Students’ Attitude Towards the Use of Augmented Reality to Learn Atoms and Molecules Reactions in a Palestinian School			Palestine
		Ewais	Ahmed	Arab American University	
Pacific 3 : Computing & IT Education - Full Papers (10min presentations + 3min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
14:00—14:13	129	A Top-Down Approach to Teaching Web Development in the Cloud			Japan
		Liang	Zilu	The University of Tokyo	
14:15—14:28	435	Tutoring Environment for Automata and the Users’ Achievement Goal Orientations			Philippines
		Tecson	Cesar	Ateneo de Manila University, Philippines	
14:30—14:43	445	The Impact of Crossword Puzzles on Students’ Performance: Does Pre-exposure to Puzzles Matter?			South Africa
		Lottering	Roderick	Tshwane University of Technology	
Keira : Industry Session & K-12 Practitioner Session (15min presentations + 4min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
14:00—14:40	501	Microsoft Teams			Australia
		Townes	Megan	Microsoft	
14:40—15:00	341	School / Industry STEM Partnerships (SIPS)			Australia
		Scott	Matthew James	NSW Department of Education	
15:00—15:20	420	Using Digital Technology to Enhance Teaching and Learning in Engineering Studies with Integration of Computational Thinking			Australia
		Leung	Ho Chung	GRC Oatley Senior Campus	
Belmore : Panel , Industry & Big Data, Analytics & Machine Learning in Education Sessions					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
14:00—14:40	489	Panel Session - Scaling Up Learning Analytics Research Innovations: Challenges and Approaches			USA
		Whitmer	John C.	ACT, Inc	
		Kennedy	Gregor	The University of Melbourne	Australia
		Ben-Naim	Dror	Smart Sparrow	Australia
		Pardo	Abelardo	University of South Australia	Australia
14:40—15:00	506	Turning STEM Grading Into Learning			Australia
		Singh	Arjun	Gradescope by Turnitin	
15:00—15:15	108	Integrated Telegram and Web-based Forum with Automatic Assessment of Q&A for Collaborative Learning			Singapore
		Dai	Bingtian	Singapore Management University	
15:15—15:30	155	MOOC-O-Bot: Using Cognitive Technologies to Extend Knowledge Support in MOOCs			Australia
		Vigentini	Lorenzo	UNSW Sydney	
Registration & Exhibit Area					
15:55—15:55	Afternoon Tea			Registration & Exhibit Area	
Throsby (Ballroom 1) : Engineering Education - Short Papers (6min presentations + 2min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
16:00—16:08	214	A Holistic View on Engineering Education: How to Educate Control Engineers			Norway
		Samuelson	Dag A. H	University of Southeastern Norway	
16:10—16:18	316	Smart Grid Education: A Review of Global Course Offerings and the UNSW Sydney Approach			Australia
		Konstantinou	Georgios	University of New South Wales	
16:20—16:28	300	From an International Classroom to a Distributed Work Environment: Student Perspectives on Global Software Engineering			Japan
		Vasilache	Simona	University of Tsukuba	
16:30—16:38	264	Unplugged Game Play Motivates the Study of Engineering Ethics			Australia
		Skinner	Iain	University of New South Wales	
16:40—16:48	148	Using Games for Learning to Improve Students Performance in Higher Education			Norway
		Velvin	Jan	University of Southeastern Norway	
16:50—16:58	418	Assessment Map for Multidisciplinary Abilities for IoT System Development Education @based on a Robot Contest			Japan
		Watanabe	Harumi	Tokai University	
17:00—17:08	241	Analysis of Engineering Students Academic Satisfaction in a Culturally Diverse University			UAE
		Hysaj	Ajrina	University of Wollongong in Dubai	

McCabe (Ballroom 2) : Big Data, Analytics & Machine Learning in Education and Industry Sessions					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
16:00—16:08	245	Artificial Intelligence to Enhance Learning Design in UOW Online, a Unified Approach to Fully Online Learning			Australia
		Cao	Trinh	University of Wollongong	
16:10—16:18	263	Using Data Mining and Machine Learning Approaches to Observe Technology-Enhanced Learning			Australia
		Howard	Sarah Katherine	University of Wollongong	
16:20—16:28	415	Inferring the Climate in Classrooms from Audio and Video Recordings: A Machine Learning Approach			Singapore
		Kashyap	Mohan	Nanyang Technological University	
16:30—16:38	416	Hybrid Fuzzy-Statistical System for Learning Analytics			Australia
		Sohail	Shaleeza	King's Own Institute	
16:40—17:00	506	Turning STEM Grading Into Learning (Repeat)			Australia
		Singh	Arjun	Gradescope by Turnitin	
Hoskins (Ballroom 3) : Technology-Enhanced Learning - Short Papers (6min presentations + 2min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
16:00—16:08	436	Developing Higher Order Thinking Skill with the 120-Minute Instructional Station Rotation (MRSP120) Approach: Students' Perceptions			Malaysia
		Mohd Zaid	Norasykin	Universiti Teknologi Malaysia	
16:10—16:18	150	Usability Testing of VLASTA: A Vocabulary Learning and Strategy Teaching App			Australia
		Mirzaei	Siamak	Flinders Univesity	
16:20—16:28	225	An Innovative Hybrid Model for Developing Cross Domain ICT Talent in Digital Economy			Taiwan
		Wu	Hsin-jung	Institute for Information Industry	
16:30—16:38	273	Improving Student’s Engagement through the Use of Learning Modules, Instantaneous Feedback and Automated Marking			China
		Rattadilok	Prapa	University of Nottingham Ningbo China	
16:40—16:53	329	Improving Feedback and Discussion in MOOC Peer Assessment using Introduced Peers - Full Paper (10min pres +3min)			Sri Lanka
		Gamage	Dilrukshi	University of Moratuwa	
Kembla : STEM Education (K-12) - Short Papers (6min presentations + 2min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
16:00—16:08	268	Supporting Physics Teachers to Deliver the New High School Certificate Syllabus: What are the Priorities?			Australia
		Jarrett	Lorna Elaine	University of Wollongong	
16:10—16:18	390	Teaching Mathematics with Music: A Pilot Study			Australia
		Hamilton	Tara Julia	Macquarie University	
16:20—16:28	424	Kids Making AI : Integrating Machine Learning, Gamification, and Social Context in STEM Education			Thailand
		Pataranutaporn	Pat	King Mongkut's University of Technology Thonburi	
16:30—16:38	428	Hack Biodesign: An Integrative STEAM Education in Biology, Engineering and Design			Thailand
		Subsoontorn	Pakpoom	Naresuan University	
16:40—16:48	477	Preparing Australian High School Learners with 21st Century Skills			Australia
		Shields	Rebecca	Central Queensland University	
16:50—16:58	319	The Effectiveness of a Mentor–Mentee Program on Malaysian School Students’ Interest in STEM			Malaysia
		Mohd Zaid	Norasykin	Universiti Teknologi Malaysia	
Pacific 1 & 2 : XR & Immersive Learning Environments - Short Papers (6min presentations + 2min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
16:00—16:19	419	Scaling Immersive Learning Technology at TAFE NSW (VET Practitioner 15min presentation + 4min questions)			Australia
		Dean	David	TAFE NSW	
16:20—16:28	421	Evaluating Alternative Input Techniques for Building and Construction VR Training			Australia
		Dean	David	TAFE NSW	
16:30—16:38	292	Augmented Reality Experiences in Informal Education			USA
		Petrovich Jr.	Mark Eugene	Drexel University	
16:40—16:48	458	Using Augmented Reality and Mobile Technologies to Train Automotive Technicians			USA
		Rymer	Maureen	San Diego State University	
16:50—17:05	381	Annotating Animated AR Objects for Co-located Learning (Full paper 10min presentation + 3min questions)			Australia
		Reinoso	Martin	The University of Melbourne	
Pacific 3 : Industry Session					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
16:00—16:40	512	Seamless, Intelligent Mechatronics Innovation Platform			Australia
		Kuttner	Filip	3DS	
16:40—17:20	475	Scaling Automated Scoring: Addressing Practical and Conceptual Challenges			Australia
		Lazendic	Goran	Australian Curriculum, Assessment and Reporting Authority	

Keira : Panel Session				
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation		Country
16:00—17:20		Panel Session - Learning Technology Standards		
		Wait	Lisa eWorks	Australia
		Chadwick	Ben Education Services Australia	Australia
		Saliah-Hassane	Hamadou TÉLUQ University	Canada
		Jon	Mason Charles Darwin University	Australia

Belmore : Panel Session				
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation		Country
16:00—17:20		Women in Engineering Networking Panel		
		Chakraborty	Sudipta Macquarie University	Australia
		Ros	Montserrat University of Wollongong	Australia
		Cheng	Eva University of Technology, Sydney	Australia
		Goncher	Andrea Charles Sturt University	Australia
		Vial	Alanna University of Wollongong	Australia

Lagoon Seafood Restaurant				
18:00—22:00	Gala Dinner	3-5min walk from conference hotel		

# Thursday, 6 Dec 2018

Day #3: Novotel Wollongong Northbeach				
08:30—16:30	Registration	Registration & Exhibit Area		

Throsby (Ballroom 1) : Engineering Education - Full Papers (10min presentations + 3min questions)				
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation		Country
9:30—9:43	251	Theory And Practice In A Systems Integration Project Life Cycle		
		Wolff	Karin University of Stellenbosch	South Africa
9:45—9:58	470	Exploring Approaches for Teaching and Learning Engineering Asset Management Courses		
		El-Akruti	Khaled University of Wollongong in Dubai	UAE
10:00—10:13	183	Complete Flipping of a Large Advanced Analytical Course: Engaging Students as Partners		
		Thite	Swapneel UNSW Sydney	Sydney
10:15—10:28	161	A Study on The Process and Effect of Using Cooperative Learning Approach into Electronics Lecture		
		Chang	Pei-Hua Kun Shan University	Taiwan
10:30—10:43	269	Copyright Awareness and Video Assignment: A Case Study on Thai First-Year Engineering Students		
		Maneeratana	Kuntinee Chulalongkorn University	Thailand

McCabe (Ballroom 2) : Computing & IT Education - Full Papers (10min presentations + 3min questions)				
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation		Country
9:30—9:43	131	Verifying User Concentration Based on Brainwave Control Applied to Different Game Training Methods		
		Liu	Chui Yuan Institute for Information Industry	Taiwan
9:45—9:58	172	Framework to Enhance Teaching and Learning in System Analysis and Unified Modelling Language		
		Muñoz Carpio	Juan Carlos Central Queensland University	Australia
10:00—10:13	185	International Comparison of College-Level Computing Education		
		Kakeshita	Tetsuro Saga University	Japan
10:15—10:28	213	Redesigning a Compulsory Computing Internship Course for Massification		
		Chng	Sue Inn Sunway University	Malaysia
10:30—10:43	344	Developing a Language Learning Application OER		
		Towey	Dave University of Nottingham Ningbo China	China



Kembla : Laboratory Learning and Technology-Enhanced Learning - Full Papers (10min presentations + 3min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
9:30—9:43		Applied Learning Through Industry Lab In A Course On RF Engineering & EMC			Singapore
	Venkatarayalu	Neelakantam	Singapore Institute of Technology		
9:45—9:58		Pedagogy for the Practising Engineer: A Closed Loop Feedback Control Analogy to Teaching and Learning			Australia
	McLauchlan	Craig	University of Wollongong		
10:00—10:13		Understanding Common Student Mistakes in the Remote Laboratory NetLab			Australia
	Considine	Hugh	University of South Australia		
10:15—10:28		Smart Learning in the Pacific: Design of New Pedagogical Tools			Fiji
	Nand	Ravneil	The University of the South Pacific		
10:30—10:43		Evaluation of Automatic Collaborative Learning Process Coding Using Deep Learning Methods			Japan
	Shibata	Chihiro	Tokyo University of Technology		

<u>Keira</u> : Open, Flexible & Workplace Learning - Full Papers (10min presentations + 3min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
9:30—9:43	345	Learning Management Systems in the Workplace: A Literature Review			Australia
		Sabharwal	Renu	Central Queensland University	
9:45—9:58	293	Student Collegiality in Interdisciplinary Global Contexts			Australia
		Mitric	Damir	La Trobe University	
10:00—10:13	405	An Intervention Study on the Professional Adaptability of Students in Navigation Course of Educational Technology			China
		Wu	Yong he	East China Normal University	
10:15—10:28	348	Transnational Interactive Blended Learning: A Learning Community of Practice			USA
		Wang	Minjuan	San Diego State University	

Belmore : Special & Industry Sessions					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
9:30—10:10	478	Designing Virtual Learning Experiences: Iterating Immersive Environments			Australia
		Dongas	Robert	The University of Sydney	
10:10—10:30	506	Festo/LabVolt Electromechanical Systems – A Practical Demonstration			Australia
		Lewis	Martin	Duff and Macintosh-Festo LabVolt	

<u>Boardroom</u> : By Invitation Only					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
9:30—10:45	N/A	TALE Steering Committee Meeting			R10

Registration & Exhibit Area				
10:45—11:15	Morning Tea			Registration & Exhibit Area

Throsby (Ballroom 1) : Engineering Education - Short Papers (6min presentations + 2min questions) & Industry Session					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:20—11:28	132	Systems Intelligence: A Core Competence for Next- Generation Engineers?			Finland
		Hämäläinen	Raimo Pertti	Aalto University	
11:30—11:38	182	Academic Expectations for Engineering Freshmen: Gender Differences			Portugal
		Vasconcelos	Rosa M.	University of Minho	
11:40—11:48	370	Active Interdisciplinary Learning in a Design Thinking Course: Going to Class for a Reason			Switzerland
		Gillet	Denis	cole Polytechnique Fédérale de Lausanne	
11:50—11:58	168	Facilitating the Development of Humor in Electrical Engineering Students			Australia
		O'Shea	Peter	The University of Queensland	
12:00—12:08	398	Context and Input Evaluations of Physical Fitness Training Programs in Maritime Schools			Philippines
		Bueta	Rosalin Duller	Maritime Academy of Asia and the Pacific	
12:10—12:30	504	The Hands-on Engineer: Helping Students Master the Spectrum Analyzer			Australia
		Tan	Tristen	Rohde & Schwarz	

**McCabe (Ballroom 2) : Computing & IT Education - Full Papers (10min presentations + 3min questions)**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:20—11:28	127	How We Face Globalization of Chinese Education			China
		Zhao	Liang	Shenyang Aerospace University	
11:30—11:38	309	Active Learning to Develop Key Research Skills in Master's Level Computer Science Coursework			Singapore
		Carlson	Trevor E.	National University of Singapore	
11:40—11:48	401	Teaching Key Machine Learning Principles Using Anti-Learning Datasets			China
		Roadknight	Chris	University of Nottingham Ningbo China	
11:50—11:58	430	A Proposal for Integrating Gamification into Task-Oriented Portfolio Assessment			Australia
		Renzella	Jake	Deakin University	

**Hoskins (Ballroom 3) : Technology-Enhanced Learning - Short Papers (6min presentations + 2min questions) & Industry Session**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:20—11:28	256	Knowledge Sharing in Digital Learning Communities: A Comparative Review of Issues between Education and Industry			Australia
		Jackson	Timothy Michael	University of Wollongong	
11:30—11:38	343	Adopting Good-Learners’ Paths in an Intelligent Tutoring System			Indonesia
		Meliana	Selly	Telkom University	
11:40—11:48	160	Smart Phone Endowed Intelligent Teaching for University General Education Curriculum in China			China
		Liu	Zhen	South China University of Technology	
11:50—11:58	186	Using Trello to Support Agile and Lean Learning with Scrum and Kanban in Teacher Professional Development			New Zealand
		Inkila	Milla	The Mind Lab	
12:00—12:08	149	TSP: Truthful Grading-Based Strategyproof Peer Selection for MOOCs			China
		Wang	Yufeng	Nanjing University of Posts and Telecommunications	
12:10—12:30	503	Enhancing Digital Learning in Engineering, Solved			Australia
		Sofios	Haritos	Smart Sparrow	

**Kembla : XR & Immersive Learning Environments - Short Papers (6min presentations + 2min questions) & Industry Session**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:20—11:28	103	Using Virtual Reality to Enhance Learning in a Chinese Architectures Course: A Flipped Classroom Approach			Hong Kong
		Im	Siu Wo Tarloff	City University of Hong Kong	
11:30—11:38	249	AHA: ADHD Augmented (Learning Environment)			Ireland
		Hasegawa	Tomonori	University College Dublin	
11:40—11:48	258	Extending a Virtual Reality Nasal Cavity Education Tool with Volume Rendering			New Zealand
		Marks	Stefan	Auckland University of Technology	
11:50—11:58	362	Why Don't You Evacuate Speedily? Augmented Reality-Based Evacuee Visualisation in ICT-based Evacuation Drill			Japan
		Mitsuahara	Hiroyuki	Tokushima University	
12:00—12:08	452	An Evaluation of Nursing Student Motivation to Learn through Holographic Mixed Reality Simulation			USA
		Hauze	Sean	San Diego State University	
12:10—12:18	481	Seeking the Treasures of Theoretical Computer Science Education: Towards Educational Virtual Reality for the Visualization of Finite State Machines			Germany
		Dengel	Andreas	University of Passau	
12:20—12:33	327	The Potential of Augmented Reality for Computer Science Education (Full paper 10min presentation + 3min questions)			Australia
		Resnyansky	Dmitry	University of South Australia	

**Keira : Industry Session**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:20—12:00	514	The Future of Industry and Preparing the Future Workforce			Australia
		Dodd	Brenton	Solvía (Dassault Systèmes Business Solutions)	

**Belmore : Special Session**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:20—12:40	468	Practice-Based Simulation to Develop Students into Engineering Cadets			Australia
		Devitt	Joshua	Charles Sturt University	

**Boardroom : *Special Session (Part 1)***

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
11:20—12:40	226	Enhancing Class Interactivity—Teaching and Learning Professional Development Session (Part 1)			Australia
		Dean	Bonnie Amelia	University of Wollongong	

Windjammers Restaurant					
12:30—13:35	Lunch	Windjammers Restaurant			

**Throsby (Ballroom 1) : Engineering Education - Short Papers (*6min presentations + 2min questions*)**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
13:40—13:48	307	Praxis-Oriented Teaching of Project Management Skills for STEM Students in Higher Education			Germany
		Rich	Beatrice M.	Brandenburg University of Technology	
13:50—13:58	308	Preparing STEM Students for Leading Positions through Supervising Younger Students			Germany
		Worlitz	Jane	Brandenburg University of Technology	
14:00—14:08	340	'Learning 4.0': A Conceptual Discussion			Germany
		Klopp	Marco	Aschaffenburg University of Applied Sciences	
14:10—14:18	193	Development of a Real-Time Evaluation Support System Using Physiological Index: Case Study of a Simulator-Based Ship Handling Exercise			Japan
		Murai	Koji	Tokyo University of Marine Science and Technology	
14:20—14:28	400	The Impact of Final Term Exam Exemption Policy: Case Study at MAAP			Philippines
		David	Lawrence C. G.	Maritime Academy of Asia and the Pacific	
14:30—14:38	377	A Preliminary Study of the Implementation of Concept Maps for Teaching and Learning Strategies in a Power Engineering Course			Malaysia
		Aziz	Anees Binti Abdul	Universiti Teknologi MARA	
14:40—14:48	392	Empowering Weak Engineering Students through My UiTM Engineer Program and Understanding the Characteristics of Weak Students			Malaysia
		Hussin	Hanim	Universiti Teknologi MARA	
14:50—14:58	179	Multidisciplinary Student Performance-Based Teaching Design for Engineering Design via a Commercial Case			China
		Liu	Zhen	South China University of Technology	

**McCabe (Ballroom 2) : Miscellaneous Short Papers - Short Papers (*6min presentations + 2min questions*)**

Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
13:40—13:48	472	Engineering Students at Day Zero: Selection and Concerns by Gender			Australia
		Nikolic	Sasha	University of Wollongong	
13:50—13:58	143	Towards a Holistic Approach to Improve the Retention Rate of Freshmen in Engineering			Pakistan
		Abid	Muhammad Irfan	Riphah International University, Faisalabad	
14:00—14:08	278	Readiness of Japanese Elementary School Teachers to Begin Computer-Programming Education			Japan
		Ohashi	Yutaro	Nippon Institute of Technology	
14:10—14:18	397	The Beneficial Effects of an Autonomously Operated Engineering Education Outreach Program: A Case Study of the Servant Leadership Program			South Korea
		Jung	Eunju	Korea University	

Hoskins (Ballroom 3) : Technology-Enhanced Learning - Short Papers (6min presentations + 2min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
13:40—13:48	376	A Blended Learning Approach to Experiential STEM Education for Young Learners			China
		Ng	David C	Shantou University	
13:50—13:58	410	Quality Assurance of a Hybrid Online Course through Iterative Process Control			China
		Wan	Han	Beihang University	
14:00—14:08	426	Teaching Students about Machine Learning through a Gamified Approach			China
		Rattadilok	Prapa	University of Nottingham Ningbo China	
14:10—14:18	459	Towards Smart Educational Recommendations with Reinforcement Learning in Classroom			China
		Hei	Xiaojun	Huazhong University of Science and Technology	
14:20—14:28	330	Blended Learning for the Indo-Pacific			Australia
		Worthington	Tom	Australian National University	
14:30—14:38	351	The Use of Multiple-Choice Questions in 3rd-Year Electronic Engineering Assessment: A Case Study			UK
		Bremner	Duncan James	University of Glasgow	
14:40—14:48	433	International Experiences and the Implications for the Success of Engineering Programs			Portugal
		Vasconcelos	Rosa M.	University of Minho	

Kembla : XR & Immersive Learning Environments - Short Papers (6min presentations + 2min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
13:40—13:48	133	Designing Immersive Mobile Mixed Reality for Paramedic Education			New Zealand
		Cochrane	Thomas Donald	Auckland University of Technology	
13:50—13:58	180	Embedding Mixed Reality in Humanitarian Logistics Gaming			Singapore
		William	Linda	National University of Singapore	
14:00—14:08	368	A Novel Augmented Reality Guidance System for Future Informatization Experimental Teaching			China
		Cao	Yanpeng	Southeast University	
14:10—14:18	373	An Experimental Research of Augmented Reality Technology From the Perspective of Mobile Learning			China
		Cai	Wu	South China Normal University	
14:20—14:28	451	Design and Practice of Exploratory Virtual Experiment in Physics Discipline			China
		Yu	Shufan	Central China Normal University	
14:30—14:38	497	Integrating an Intelligent Tutoring System with a Dialogue Manager for Procedural Training in a 2D/3D Virtual Environment			Ecuador
		Paladines	José	Universidad Estatal del Sur de Manabí	
14:40—14:48	480	Examining the Impact of Pedagogical Agents on Students Learning Expirience in Virtual Worlds			Australia
		Nikolic	Sasha	University of Wollongong	

Keira : Open, Flexible & Workplace Learning - Short Papers (6min presentations + 2min questions)					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
13:40—13:48	147	Characterizing Concept Conveying in Interactions between MOOC Students and Assistants			China
		Wu	Xiao-Xiao	Central China Normal University	
13:50—13:58	454	Harnessing OERs in Hong Kong Technical and Vocational Education and Training (TVET)			China
		Towey	Dave	University of Nottingham Ningbo China	
14:00—14:08	471	Open-Space Teaching and Learning in Tertiary Education: A Case Study			New Zealand
		Ramezaniapour	Mohammad	Ara Institute of Canterbury	
14:10—14:18	488	EntreCompOnto: An Ontology for Semantic Representation of Entrepreneurship Competencies			Spain
		Tovar	Edmundo	Universidad Politécnica de Madrid	
14:20—14:28	463	Surviving in the Gig Economy: Change of STEM Students’ Perceptions on the Generic Skills for the Workplace			Hong Kong
		Mark	Kai Pan	The Hong Kong Polytechnic University	



Belmore : Special Session					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
13:40—15:00	490	Online Laboratories in Engineering Education: Innovation, Disruption, and Future Potential			Canada
		Saliah-Hassane	Hamadou	TÉLUQ University	
13:40—15:00	201	PILAR: A Federation of VISIR Remote Laboratory Systems for Educational Open Activities			Spain
		Loro	Felix Garcia	UNED, Spain	

Boardroom : <i>Special Session (Part 2)</i>					
Time	Sub. ID	Contribution Title   Presenter Family Name / First Name / Presenter Affiliation			Country
13:40—15:00	226	Enhancing Class Interactivity— Teaching and Learning Professional Development Session (Part 2)			Australia
		Dean	Bonnie Amelia	University of Wollongong	

Registration & Exhibit Area		
15:00—15:30	Afternoon Tea	Registration & Exhibit Area

Grand Ballroom		
15:34—16:20	Keynote by Emeritus Professor James Trevelyan	Grand Ballroom
16:20—17:00	Awards and Closing Ceremony	Grand Ballroom

The Deck		
17:00—18:00	Post-Conference Drinks	The Deck

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